<u>**Amendments to the Drawing Figures**</u>:

The attached drawing sheets replace the original sheets of Fig 1 to Fig 4.

Attachment: Replacement Sheets (Fig 1 to Fig 4)

REMARKS / DISCUSSION OF ISSUES

Applicant has carefully reviewed and considered the Office Action mailed on January 02, 2008, and the references cited therewith.

Claims 1, 7 and 8 are amended; as a result, claims 1-10 are now pending in this application.

Objection of the Claims

Amended claim 8 overcomes the Examiner's objection.

§ 102 Rejection of the Claims

Avinash et al. describes an improved technique for enhancing discrete pixel ultrasound images which is computationally efficient and which maintains image quality. The technique combines multi-resolution decomposition with a segmentation-based technique that identifies structures within an image and separately processes the pixels associated with those structures. Also, in column 13, lines 10-18, Avinash describes high frequencies are introduced by adding very small amount of intensity-dependent, uniform random noise to the interpolated image to produce a visually pleasing effect. In contrast, amended independent claims 1, 7 and 8 recite "an image conversion unit for converting a first image with a first resolution into a second image with a second resolution, the second resolution being higher than the first resolution, characterized in that the image conversion unit is arranged to add noise to the second image, wherein the said noise comprises spectral components that are in a part of a frequency spectrum that is above the Nyquist frequency of the first image". Support for this can be found in claims 1, 7 and 8, and in the page 2 of the specification, lines [5–10].

Amended Independent claims 1, 7 and 8 should thus be found allowable, and such action is respectfully requested. Claims 5-6 and 9-10 depend directly or

indirectly from amended independent claims 1 and 8, so they should be allowable for the reason presented above.

For the above reasons, claims 1 and 5-10 should be found allowable over Avinash et al. and Applicants request that the rejection of claims 1 and 5-10 as anticipated by Avinash et al. should be withdrawn

§ 103 Rejection of the Claims

Avinash et al. describes an improved technique for enhancing discrete pixel ultrasound images which is computationally efficient and which maintains image quality. The technique combines multi-resolution decomposition with a segmentation-based technique that identifies structures within an image and separately processes the pixels associated with those structures. Also, in column 13, lines 10-18, Avinash describes high frequencies are introduced by adding very small amount of intensity-dependent, uniform random noise to the interpolated image to produce a visually pleasing effect. In contrast, claim 2 recites "a noise generator which is arranged to generate the noise and that the noise comprises spectral components that are in a part of a frequency spectrum that is above the Nyquist frequency of the first image". Support for this can be found in page 2, lines 5-10 of the specification.

Applicant respectfully asserts that Avinash reference fails to support *prima facie* case of obviousness because as mention above, the cited reference fail to teach or suggest all of the elements of the Applicant's invention.

For the above reasons claim 2 should be found allowable over Avinash references and request that the rejection be withdrawn.

Avinash et al. describes an improved technique for enhancing discrete pixel ultrasound images which is computationally efficient and which maintains image quality. The technique combines multi-resolution decomposition with a segmentation-based technique that identifies structures within an image and separately processes the pixels associated with those structures. Also, in column 13, lines 11-15, Avinash describes high frequencies are introduced by adding very small amount of intensity-

dependent, uniform random noise to the interpolated image to produce a visually pleasing effect. Pappas et al describes an image-processing system for perceptual coding of images by analyzing one or more images to determine levels of imperceptible noise and encoding a first image to produce encoded values without introducing noise exceeding a determined level of imperceptible noise is disclosed. In contrast, amended independent claim 1 recites "an image conversion unit for converting a first image with a first resolution into a second image with a second resolution, the second resolution being higher than the first resolution, characterized in that the image conversion unit is arranged to add noise to the second image, wherein the said noise comprises spectral components that are in a part of a frequency spectrum that is above the Nyquist frequency of the first image". Support for this can be found in claim 1 and in the page 2 of the specification, lines [5–10].

Claims 3 and 4 are dependent directly or indirectly from independent claim 1, so they should be found allowable over Avinash and Pappas references for the reasons presented above.

Applicant respectfully asserts that Avinash and Pappas references fail to support *prima facie* case of obviousness because as mention above, the cited references fail to teach or suggest all of the elements of the Applicant 's invention.

For the above reasons claims 3 and 4 should be found allowable over Avinash in view of Pappas references and request that the rejection be withdrawn.

In view of the foregoing, Applicant respectfully requests that the Examiner withdraw the objections and/or rejections of record, allow all the pending claims 1-10, and find the application in condition for allowance. If any points remain in issue that

may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.
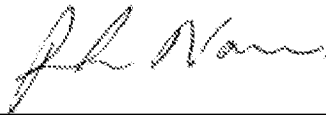
Respectfully submitted,

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